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Docket No.: 826.1377

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

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In re the Application of:

Hironobu KITAJIMA et al.

Serial No. 08/814,409

Group Art Unit: 2132 Technology Center 2100

Confirmation No. 4623

Filed: March 11, 1997

Examiner: D. Meislahn

For: ENCRYPTING/DECRYPTING SYSTEM WITH PROGRAMMABLE LOGIC  
DEVICE/UNIT AND METHOD THEREOF

**REPLY BRIEF**

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

This is in reply to the Response to Argument (Section 11) in the Examiner's Answer mailed May 21, 2002 in the appeal of the final rejection in the above-identified application. The Response to Argument makes the following assertions:

- (1) Dabbish '478 discloses how to reprogram the crypto cores;
- (2) The lack of recitation of a specific event triggering the "change automatically" performed by the changing unit permits reading of the triggering event on "the external EPE program being read at the input/output module 103" of Dabbish '478;
- (3) The phrase "much more than a 'command'" can be interpreted as "an admission that the cited prior art contains the command";
- (4) There is a suggestion in the prior art to combine Dabbish '478 and Knapp et al.; and
- (5) The official notice in the Office Action mailed March 23, 1999 is sufficient evidence that encrypting change data was known in the art.

Each of these assertions will be rebutted below.

With respect to assertion (1), the Examiner cited column 1, lines 35-50 of Dabbish '478 as providing "an outline for how the 'cryptographic circuit can be programmed or reprogrammed'" and asserted that details are provided starting at line 48 of column 2.

However, this "more detailed description of one way to program the cryptographic circuit" (Examiner's Answer, page 8, lines 15-16) does not support the rejection of the claims.

First, Appellants have not found any citation in any of the six Office Actions of the portions of Dabbish '478 cited in the Examiner's Answer as disclosing how to reprogram the crypto cores, despite the arguments by the Appellants since the June 23, 1999 Amendment (filed in response to the first Office Action) that Dabbish '478 does not disclose the method or apparatus for programming a programmable logic device with an encryption (or decryption) program as recited in the claims. Furthermore, the lack of disclosure in Dabbish '478 and the need to refer to Dabbish et al. '697 has specifically been argued since the Amendment filed April 10, 2000. The Examiner's Answer provides no explanation of why the Office Actions mailed July 17, 2000, January 26, 2001 and August 13, 2001 failed to cite the newly cited portions of Dabbish '478 if they were relevant to this issue.

One possible explanation of why these portions of Dabbish '478 were not cited previously is that they are not particularly relevant to the method and apparatus recited in the appealed claims. As discussed in the April 10, 2000 Amendment, Dabbish et al. '697 states that "an external device such as a microprocessor controlled computer is coupled to the address and data bus ports and is utilized to program the internal gate configurations of each EEPAL" (column 2, lines 64-67) after installation of the EEPAL. Nothing has been found in the newly cited portions of Dabbish '478 suggesting use of any other technique than the one disclosed in Dabbish '697. The "detailed description" portion of Dabbish '478 states that various type of instructions are received "from the external programming equipment (EPE) (105)" (column 2, lines 49-50). This is completely consistent with the teachings in Dabbish '697 and does not suggest the method or apparatus recited in the claims, for the reasons discussed in the Appeal Brief and Amendments filed during prosecution of the application.

With respect to assertion (2), the appealed claims recite "a changing unit, coupled to said circuit unit and said change data generating unit, to change automatically a structure of the encrypting circuit corresponding to the mapping data object" (claim 1, lines 12-14). Although words like "specific event that triggers generating change data or changing a circuit structure" (Examiner's Answer, page 8, last two lines) are not used, it is submitted that one of ordinary skill in the art would understand that "corresponding to the mapping data object" indicates that "to change automatically" is being performed in response to the "mapping data object representing the structure of the encrypting circuit" (claim 1, lines 10-11) generated by the mapping data generating unit "in accordance with predetermined criteria received from the

remote computer via the communication network" (claim 1, lines 9-10). As argued in most, if not all, of the responses to the six Office Actions, this sequence of operations is significantly different from the programming (or reprogramming) mechanism disclosed by Dabbish '478 and Dabbish et al. '697. For the reasons discussed during prosecution and in the Appeal Brief, there is no suggestion in Dabbish '478 (or Dabbish et al. '697) of the series of operations performed by the apparatus recited in claims 1, 10, 19-22 or 26-31, or the methods recited in claims 23 and 24.

With respect to assertion (3), it is submitted that the phrase "much more than a 'command" does not imply that a "command" is included in what is transmitted from the EPE 105 to the crypto cores 100, 101 taught by Dabbish '478. The statement in the second paragraph on page 4 of the Appeal Brief was not that "a command and much more" is transmitted, but rather that Dabbish '478 and Dabbish '697 teach a mechanism for programming an encryption device that requires relatively low-level instructions, as opposed to "a command". The difference is significant. There is no explanation in either of these Dabbish '478 or Dabbish '697 to suggest how one of ordinary skill in the art could create a programmable device that changes an encryption program stored therein in response to a command. In the history of computing, developments have repeatedly been made that allow more and more to be accomplished in response to a simple commands. In the earliest computer, a computer program specified the setting of each bit of memory. Now, a relatively simply command may be "draw circle" followed by parameters. The ability of a computer to respond to such a command and display a circle requires programs that can translate the command into lower and lower level instructions, until individual bits are set. The level of programming taught by Dabbish '478 and Dabbish '697 does not enable one of ordinary skill in the art to create an encrypting or decrypting unit "in which circuit connections for encrypting (decrypting) data can be changed in response (corresponding) to an external command" (lines 3-4 of claims 30 and 31).

With respect to assertion (4), the Examiner's Answer states that the supervisory circuit 102 (Fig. 1) of Dabbish '478 is "the changing means and would be the element that a person of ordinary skill in the art would be inclined to modify according to Knapp et al." (Examiner's Answer, page 9, lines 16-17). There is no other statement in the Examiner's Answer explaining **why** one of ordinary skill in the art would be inclined to modify the supervisory circuit 102 of Dabbish '478 based on the teachings of Knapp et al. Therefore, it is submitted that the

arguments in the Appeal Brief regarding lack of suggestion to combine Dabbish '478 and Knapp et al. have not been rebutted.

With respect to assertion (5), the statement in the March 23, 1999 Office Action was that "[o]fficial notice is taken that it is old and well known to encrypt data so as to prevent it from being used by parties other than the intended recipient" (page 3, lines 10-12). Appellants do not dispute this general statement. However, the issue discussed in the Appeal Brief is whether there is any suggestion in the prior art that "change data" should be encrypted. As discussed in the Appeal Brief, there is no suggestion in Dabbish '478 or Dabbish '697 that what is received from the EPE 105 is encrypted, because these references assume that all of the components illustrated in Fig. 1 of Dabbish '478 are co-located in a facility operated by the user. The lack of suggestion of encrypting the data merely points out the differences between the present invention and Dabbish '478. It is mere conjecture that it would be obvious to one of ordinary skill in the art to encrypt data when there is no suggestion of transmitting the data in a manner that would require encryption.

For the reasons set forth above, it is submitted that the Examiner's Answer does not rebut the arguments made in the Appeal Brief and during prosecution of the application. Therefore, it is respectfully submitted that the Examiner's final rejection of the claims is without support and erroneous. Accordingly, the Board of Patent Appeals and Interferences is respectfully urged to so find and to reverse the Examiner's final rejection.

If any additional fees are required in connection with the filing of this Reply Brief, please charge same to our Deposit Account No. 19-3935.

Respectfully submitted,

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Date: 7/22/02

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